

In The Abstract

Please add the following Abstract as follows and attached hereto on a separate sheet:

ABSTRACT OF THE DISCLOSURE

A flow of fluid is switched on and off by diverting the flow to an alternative path. In a preferred application an abrasive cutting jet, formed by a flow of abrasive slurry fed via a conduit to a cutting jet nozzle, is switched on and off by diverting the flow at a three way changeover valve to a conduit and bypass nozzle. Valves control the connection to a flow of clean auxiliary water to respective outlet ports of the changeover valve to reduce pressure differentials during operation of the changeover valve and to provide clean backflows which hydraulically divert the flow of abrasive slurry at the changeover valve and allow the changeover valve to open and close on a clean, largely abrasive-free flow.

ABSTRACT OF THE DISCLOSURE

A flow of fluid is switched on and off by diverting the flow to an alternative path. In a preferred application an abrasive cutting jet, formed by a flow of abrasive slurry fed via a conduit to a cutting jet nozzle, is switched on and off by diverting the flow at a three way changeover valve to a conduit and bypass nozzle. Valves control the connection to a flow of clean auxiliary water to respective outlet ports of the changeover valve to reduce pressure differentials during operation of the changeover valve and to provide clean backflows which hydraulically divert the flow of abrasive slurry at the changeover valve and allow the changeover valve to open and close on a clean, largely abrasive-free flow.